



# Well Sampling Method (Fast Recharging Wells) Standard Operating Procedure

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## Groundwater Monitoring

### Fast Recharging Well

1. Calibrate all field instruments at the start of each day's deployment per the instrument manufacturer's instructions. Record calibration data on the *Field Calibration Documentation Form* (EMS Document Control No. RDD-F-GW-09).
2. Drive to the first well scheduled to be sampled (typically the least contaminated). Make notes in the *Field Activity Log* (EMS Document Control No. RDD-F-01) describing the well condition, personnel, weather, location, etc.  
**\*Note** – Start at up-gradient wells whenever possible.
3. Clean (phosphate-free detergent, tap rinse, deionized water rinse) depth meter, purge pump, purge tubing safety line and bailer before any sampling or measuring.  
**\*Note** – Anything to be put into well must be CLEANED before hand.
4. Check the following:
  - Compressed air tank, regulator, hoses, oil and fuel,
  - Check, label, and date sample collection containers. Add staff information,
  - Prepare *Chain of Custody* with sample ID, date, and analysis,
  - Start generator, ensuring that the exhaust of the equipment vents downwind of the well.  
**\*Note** – Note in *Field Activity Log* (EMS Document Control No. RDD-F-01) all deviations from standard protocols (i.e., changes in purge volumes, measurements, instruments used).
5. Open wellhead.
6. Fill in appropriate Well Data sheet.  
**\*Note** – Note any unusual conditions such as odors.
7. Measure depth to water.
8. Measure total depth or see historical data.
9. Calculate well volume and determine total volume to be purged from the appropriate Well Data sheet.
10. Begin purging, (See the San Diego County SA/M manual, Purging; Option One and Option Two guidance attached).



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11. Set up water quality instruments and clean probes with distilled water sprayer.
12. Conduct field water-quality measurements (temperature, pH, and specific conductance) every ½ bore hole volume, turn off pH meter after each reading.
13. For slow wells, see “Slow Recharging Well Sampling Method”.
14. Complete appropriate Well Data sheet.  
\*Note – DO NOT post purge on any site.
15. Replace well cap and lock, close well head cover and lock.
16. Complete *Chain of Custody*.
17. Decontaminate purging and sampling equipment with phosphate-free detergent, rinsing with potable water and final rinsing with deionized water.

### **Benefit of Compliance to Instruction:**

- Ensures consistency in all readings
- Compliance with Regulatory guidelines
- Provides proper QA/ QC for all wells sampled
- Allows for a consistent, reliable, historical record of analytical results

### **Consequence of Non-Compliance to Instruction:**

- Inaccurate readings
- Useless data that must be sampled again
- Resampling and analysis cost overruns
- Disciplinary action
- Impacts to groundwater not identified in timely fashion

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*Environmental Management System (EMS) –ISO 14001*

*PROCESS MAP #: GW-1.0*

**Reviewed by:** Ray Purtee, *Senior Mechanical Engineer*

**Approved by:** Steven F. Fontana, *Deputy Environmental Services Director, Refuse Disposal*

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